

Inside This Issue of JACC

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Viewpoint

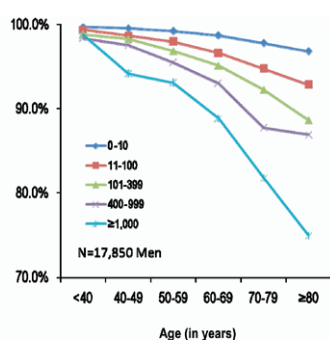
A Call for More Studies of Coronary Perfusion in Patients With Heart Failure

Bohar and colleagues note that the vasoactive medications used to treat acute heart failure may increase mortality, particularly in patients with coronary artery disease. Different techniques for assessing both epicardial stenoses and myocardial perfusion are reviewed. The conclusion is that the relationship between vasoactive medications, coronary perfusion, and myocardial injury merits further investigation with imaging techniques that can reliably quantify myocardial perfusion. [See page 13.](#)

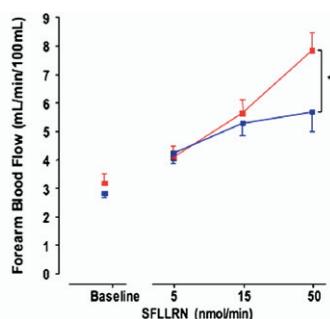
Coronary Artery Disease

CAC Scoring Predicts Mortality in Elderly Subjects

It is unclear if coronary artery calcium scoring (CAC) adds prognostic information for elderly subjects. Raggi and colleagues reviewed CAC scores and subsequent mortality from more than 35,000 patients who underwent CAC testing, 10% of whom were >70 years of age. Higher CAC scores were associated with higher mortality across all age deciles. Several elderly patients were moderate or high risk based on Framingham risk scores, but had low CACs and low mortality, suggesting that they could be reclassified based on their low CAC. CAC appears to provide prognostic information in elderly patients. [See page 17.](#) [See figure.](#)



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Vascular Medicine

Smoking Inhibits Fibrinolytic Pathways

Distinct from its role in the coagulation cascade, thrombin can stimulate protease activated receptor type 1 (PAR-1). PAR-1 activation causes arterial vasodilatation and the release of fibrinolytic factors. Lang and colleagues compared forearm blood flow during infusions of a PAR-1-activating-peptide in smokers and nonsmokers. Smokers had impaired vasodilatation and less release of tissue-type plasminogen activator compared to nonsmokers. Cigarette smoking seems to impair PAR-1-mediated functions, and may thereby increase cardiac risk. [See page 33.](#) [See figure.](#)

Cardiac Surgery

A Systematic Approach for Repairing Bicuspid Aortic Valves

Pettersson and colleagues report on their results at attempted valve repair, rather than replacement, in 63 patients with bicuspid aortic valves. Valves were characterized using a descriptive system that included cusp pathology, commissure variations, and aortic root morphology. Two-thirds of the valves were repaired with good results. Using this systematic analysis may help to facilitate aortic valve repair by defining key abnormalities and standardizing the language to describe them. [See page 40.](#)